
	Application No.		Applicant(s)	
	09/766,636		GORENSTEIN, ALAN K.	
	Examiner		Art Unit	
	Khanh H. Le		3622 	

Notice of Allowability

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to ____.
2. ☒ The allowed claim(s) is/are 1-28, 31 and 32.
3. ☒ The drawings filed on ____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date ____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date ____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other ____. |

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Allowance/Examiner's Amendment
Reply to Correspondence received 09/17/2004

1. This Office Action is responsive to Applicant's Correspondences (Amendments) received 08/04/2004, and faxed in directly to the Examiner on 9/17/2004. Per agreement with Mr. L.T. Cullen, Applicant's representative, neither of the amendments dated 08/04/2004 or 9/17/2004 will be entered. Instead an Examiner's Amendment will be made incorporating the changes made to the claims, as faxed by Mr. Cullen on 9/17/04, wherein the claims are agreed by the Examiner to be in condition for allowance.

EXAMINER'S AMENDMENT

2. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on 9/17/04 and per fax transmitted to the Examiner on 9/17/04, Mr. L.T. Cullen, Applicant's representative, requested an extension of time for 2 MONTH(S) and authorized the Director to charge Deposit Account No. 500417 the required fee of \$420.0 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

3. **Please cancel claims 29-30. Claims 22 and 32 are amended as follows:**

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~~22.~~ A method for segmenting members of a population of members, comprising the steps of:
running a first segmentation strategy against a population using a computer to generate a first score for each population member, said first score indicating variance among the population;
running a second segmentation strategy, different than said first segmentation strategy against the population to generate a second score for each population member, said second score indicating variance among the population, wherein said first score provides an indicator of variance independent of the indicator of variance provided by said second score;
generating a first composite score for each population member by combining the respective first score and the respective second score; and
segmenting the population according to the generated first composite scores,
wherein the first and second segmentation strategies differ in at least one of terms of target and terms of purpose.

32. (Currently Amended)

A method for segmenting members of a population of members, comprising the steps of:
running a first segmentation strategy against a population using a computer to generate a first score for each population member, said first score indicating variance among the population;
running a second segmentation strategy, different than said first segmentation strategy against the population to generate a second score for each population member, said second score indicating variance among the population, wherein said first score provides an indicator of variance independent of the indicator of variance provided by said second score;
generating a first composite score for each population member by combining the respective first score and the respective second score; and
segmenting the population according to the generated first composite scores, ~~The method according to claim 22~~

wherein the first and second scores are combined through regression.

Allowance and Reasons for Allowance

4. Thus claims 1-28, 31-32 are now pending and considered. Claims 1, 5, 16, 18, 22, 32 are independent.

Independent claims 22 and 32 are currently amended. Independent claim 22 is amended to incorporate the limitations of canceled claims 29 and 30. Claim 32 is rewritten in independent form to incorporate the limitation of previous claim 32. So amended, as suggested in the last Office Action, claims 22 and 32, and all their dependents are now allowable.

5. **Claims 1-28, and 31-32 are allowed.**

6. The following is an examiner's statement of reasons for allowance:

The following combination of steps distinguish the invention from the prior art:

As to claim 1(Previously Amended)

A method for segmenting members of a population of members, comprising the steps of:
using a computer **to predict a plurality of targeted events** associated with each population member by using a plurality of segmentation strategies, **each targeted event being independently predicted from other targeted events of the plurality of targeted events by a respective segmentation strategy** of the plurality of segmentation strategies, and

generating a score associated with each prediction;
generating a first composite score for each population member by combining each of the scores for that population member, and
segmenting the population according to the generated first composite scores.

7. The closest US patent prior art reference is:

Lazarus et al., US 6,430,539 B1, discloses predictive modeling of consumer financial behavior but does not disclose the invention as claimed above.

8. The closest foreign patent prior art is:

WO 01/06405 discloses scoring per population member based on several models but does not disclose combining the scores across models as claimed.

9. The closest non-patent prior art is:

Bayesian Model Averaging: A Tutorial (with discussion) (306k bytes) Corrected version of the Statistical Science, Vol. 14, No.4, pp. 382-417 article by Jennifer A. Hoeting, David Madigan, Adrian E. Raftery and Chris T. Volinsky, November 1999, downloaded Jul 22, 2002 from www.stat.washington.edu/www/research/online/hoeting1999, hereinafter Hoeting .

Hoeting, at pages 393-394, especially p. 394 col 1 first 2 full paragraphs, steps 1' and 2' (see last office Action) , discloses

using a computer to predict **one targeted event (risk)** associated with each population member by using a plurality of segmentation strategies, and
generating a score associated with each prediction;

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generating a first composite score for each population member by combining each of the scores for that population member, and

segmenting the population according to the generated first composite scores (step 4) .

However HOETING does not disclose predicting a **plurality of targeted events** associated with each population member **by using a plurality of segmentation strategies, each targeted event being independently predicted from other targeted events of the plurality of targeted events by a respective segmentation strategy of the plurality of segmentation strategies**, associated with the other steps as recited in claim 1. There seems to be no motivation or suggestion that the particular application of Bayesian Model Averaging described by HOETING at p. 394 at column 1 first 2 full paragraphs can be extended to prediction of other targeted events as claimed in claim 1.

Claims 2-4, dependent on claim 1, are allowed for the same reasons.

Independent claim 5 parallels claim 1, with the addition of ranking the members and thus allowed for the same reasons.

Claims 6-15, dependent on claim 5, are allowed for the same reasons.

Independent claim 16 is a combination of claims 5, 11, and 12, and thus is allowed for the same reasons.

Claim 17, dependent on claim 16, is allowed for the same reasons.

Claims 18-21 parallel claims 1-4 in computer readable medium format and are allowed on the same basis.

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10. As to claim 22 (Currently Amended) , the bold part of the following combination of steps distinguishes the invention from the prior art (note: steps are lettered for better readability):

A method for segmenting members of a population of members, comprising the steps of

a) running a first segmentation strategy against a population using a computer to generate a first score for each population member , said first score indicating variance among the population ;

b) running a second segmentation strategy, different than said first segmentation strategy against the population to generate a second score for each population member, said second score indicating variance among the population, wherein said first score provides an indicator of variance independent of the indicator of variance provided by said second score ;

c) generating a first composite score for each population member by combining the respective first score and the respective second score and

d) segmenting the population according to the generated first composite scores wherein the first and second segmentation strategies differ in at least one of terms of target and terms of purpose.

The best prior art references are the same as those cited for claims 1-21. Further, there is no suggestion to combine Hoeting to any other prior art to arrive at the method of claim 22 step d) , **segmenting the population according to the generated first composite scores wherein the first and second segmentation strategies differ in at least one of terms of target and terms of purpose.**

Claims 23-28, and 31 dependent on claim 22, are allowed for the same reasons.

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11. As to claim 32 (Currently Amended) , the **bold** part of the following combination of steps distinguishes the invention from the prior art (note: steps are lettered for better readability):

A method for segmenting members of a population of members, comprising the steps of :

a) running a first segmentation strategy against a population using a computer to generate a first score for each population member , said first score indicating variance among the population ;

b) running a second segmentation strategy, different than said first segmentation strategy against the population to generate a second score for each population member, said second score indicating variance among the population, wherein said first score provides an indicator of variance independent of the indicator of variance provided by said second score ;

c) generating a first composite score for each population member by combining the respective first score and the respective second score and

d) segmenting the population according to the generated first composite scores wherein the first and second scores are combined through regression.

The best prior art references are the same as those cited for the above claims. Further, there are no suggestions to combine Hoeting to any other prior art to arrive at the method of claim 32 step d) , **segmenting the population according to the generated first composite scores wherein the first and second scores are combined through regression.**

Claim Rejections - 35 USC § 101

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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13. The rejection of claims 22-25, 27-32 under this section is withdrawn due to the amendments.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

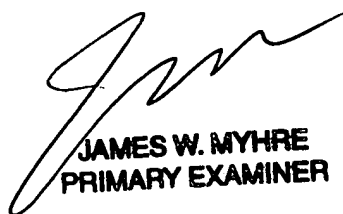
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh H. Le whose telephone number is 703-305-0571. The Examiner works a part-time schedule and can best be reached on Tuesday-Wednesday 9:00-6:00. The examiner can also be reached at the e-mail address: khanh.le2@uspto.gov. (However, Applicants are cautioned that confidentiality of email communications cannot be assured.)

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Eric Stamber can be reached on 703-305-8469. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

September 20, 2004

KHL



JAMES W. MYHRE
PRIMARY EXAMINER